IN THE SPECIFICATION

Please replace paragraph [0001] of the specification with the following amended paragraph [0001], to indicate the current status of application 10/316,151:

[0001] This application is a continuation-in-part of copending U.S. Application Serial No. 10/316,151, filed Dec 10, 2002, published as U.S. Publication No. 20030127630 A1, and issued on September 21, 2004 as U.S. Patent No. 6,793,848, which is a continuation-in-part of U.S. Application Serial No. 09/682,737, filed October 11, 2001, now U.S. Patent Number 6,630,077 B2, issued October 7, 2003. Priority is hereby claimed to both applications, which are incorporated by reference herein in their entirety.

Please replace paragraph [0015] of the specification with the following amended paragraph [0015], to insert the notation "-y" as a subscript for the element Tb in the chemical formula:

[0015] In still other configurations, the present invention provides a scintillator composition that includes, prior to annealing, the composition ~~$(Tb_{1-x}Lu_xCe_y)_3Al_5O_{12}$~~ $(Tb_{1-x-y}Lu_xCe_y)_3Al_5O_{12}$, where $0 < x \leq 0.5$.

Please replace paragraph [0024] of the specification with the following amended paragraph [0024], to insert the notation "-y" as a subscript for the element Tb in the chemical formula:

[0024] The present invention relates to terbium or lutetium aluminum oxide garnet X ray scintillators activated with a rare earth metal ion, such as cerium, and treated by heating (annealing) at high temperatures and in a defined oxygen atmosphere during or after sintering to reduce radiation damage that would otherwise occur when the scintillator material is exposed to high energy radiation. The scintillator may comprise either a single crystal or a polycrystalline scintillator having the general formula $(G_{1-x-y}A_xRE_y)_aD_zO_{12}$; wherein G is at least one metal selected from the group consisting of Tb and Lu; A is at least one rare earth metal selected from the group consisting of Y, La, Gd, Lu, and Yb when G is Tb, and selected from the group consisting of Y, La, Gd, Tb, and Yb when G is Lu; RE is at least one rare earth metal selected from the group consisting of Ce, Pr, Nd, Sm, Eu, Dy, Ho,

Er, and Tm; D is at least one metal selected from the group consisting of Al, Ga, and In; a is a range from about 2.8 to and including 3.1; x is in a range from 0 to about 0.5; y is in a range from about 0.0005 to about 0.2; and z is in a range from about 4 to and including 5.1, prior to annealing. In an embodiment, the scintillator comprises a single crystal or a polycrystalline scintillator comprising the general formula ~~$(Tb_{1-x}Lu_xCe_y)_3Al_5O_{12}$~~; $(Tb_{1-x-y}Lu_xCe_y)_3Al_5O_{12}$, where $0 < x \leq 0.5$, and y is in the range from about 0.0005 to about 0.2, and more preferably from about 0.005 to about 0.1, prior to annealing. Thus, in one embodiment, the scintillator comprises $Lu_{0.8}Tb_{2.2}Al_5O_{12}$ activated with Ce^{3+} ions prior to annealing. The scintillators of the present invention have short decay times and show reduced damage upon exposure to high-energy radiation compared to scintillators not annealed by the method of the invention.

Please replace paragraph [0047] of the specification with the following amended paragraph [0047], to insert the notation "-y" as a subscript for the element Tb in the chemical formula:

[0047] Also in some configurations, A is Lu, RE is Ce, and D is Al. Also in some configurations, the scintillator comprises the formula $(Tb_{1-y}Ce_y)_aAl_5O_{12}$ where y is in a range from about 0.0005 up to and including 0.2, and a is in the range from about 2.8 up to and including 3.1, prior to annealing. In yet another embodiment, the scintillator comprises the formula $(Tb_{1-x-y}Lu_xCe_y)_aAl_5O_{12}$, where a is a range from about 2.8 up to and including 3.1; x is in a range from 0 to up to and including 0.5; y is in a range from about 0.0005 up to and including 0.2, prior to annealing. Also in some configurations, the scintillator comprises the formula ~~$(Tb_{1-x}Lu_xCe_y)_3Al_5O_{12}$~~; $(Tb_{1-x-y}Lu_xCe_y)_3Al_5O_{12}$; where $0 < x \leq 0.5$ and y is in a range from about 0.0005 up to and including 0.2, prior to annealing.

Please replace paragraph [0067] of the specification with the following amended paragraph [0067], to insert the notation "-y" as a subscript for the element Tb in the chemical formula:

[0067] In still another embodiment, the scintillator has the formula of ~~$(Tb_{1-x}Lu_xCe_y)_3Al_5O_{12}$~~; $(Tb_{1-x-y}Lu_xCe_y)_3Al_5O_{12}$; where $0 < x \leq 0.5$, and y is in the range from about 0.0005 to about 0.2, in some configurations from about 0.005 to about 0.1, and in some configurations from about 0.005 to about 0.07.